

Application No. 09/606,884

REMARKS

Claims 1, 4-11, 13-28 and 30-52 are pending in the Application. By this Amendment, claim 15 is amended, which is supported by the specification, for example, at page 17, lines 25-29 and page 18, lines 15-22. No new matter has been introduced by this Amendment.

Claims 1, 4-11, 13, 14, 20-28 and 30-37 are allowed. Currently, claims 15-19 and 38-42 stand as rejected under 35 U.S.C. §112 first paragraph, and claims 47-52 stand as rejected under 35 U.S.C. §102(a) and (e) as being anticipated by U.S. Patent 5,549,880 to Koksbang. Applicants respectfully request reconsideration of the rejections based on the following remarks.

Rejection Under 35 U.S.C. §112

The Examiner rejected claims 15-19 and 38-42 under 35 U.S.C. §112, first paragraph, for lack of enablement. In particular, the Examiner asserted that the specification "does not reasonably provide enablement for batteries having nanoparticles of all cathode active materials, particularly metal oxides..." The Examiner also asserted that "[t]he specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with these claims." While Applicants maintain that claim 15 was fully enabled as filed, Applicants have amended independent claim 15 to advance prosecution of the application.

Reconsideration and withdrawal of the rejection under 35 U.S.C. §112 are respectfully requested.

Rejection Under Koksbang

The Examiner rejected claims 47-52 under 35 U.S.C. §102(a) and (e) as being anticipated by U.S. Patent 5,549,880 to Koksbang (the Koksbang patent). The Examiner

Application No. 09/606,884

asserted that the Koksbang patent discloses "secondary lithium batteries comprising a lithiated vanadium oxide cathode active material, a lithium metal anode, and either a polymer electrolyte separator or a solid electrolyte separator." Moreover, the Examiner asserted that the vanadium oxide particles disclosed by the Koksbang patent that are "in the form of a fine powder having a surprisingly small particle size on the order of 0.1 to 5 microns, and typically less than 10 microns" constitute a range of average particle sizes. With all due respect, Applicants do not believe that the Koksbang patent can be reasonably interpreted as suggested by the Examiner. Applicants incorporate by reference their arguments from the Response of February 3, 2003 and focus below on issues raised by the Examiner in the Office Action of April 21, 2003. Applicants respectfully request reconsideration of the rejection in view of the following comments.

The Examiner has the burden of establishing a prima facie case of anticipation. As such, the Examiner must provide a reference that discloses every element as set forth in the claim. "In order to constitute anticipatory prior art, a reference must identically disclose the claimed compound..." MPEP 2122 citing In re Schoenwald, 22 USPQ2d 1671, (Fed. Cir. 1992). In addition, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F2d. 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (MPEP §2131).

The Koksbang patent discloses that the lithium vanadium oxide particles produced by their method "have a surprisingly small particle size on the order of 0.1 to 5 microns, and typically less than 10 microns." (Col. 5, lines 4-6). The Koksbang patent does not identically disclose the compound of Applicants' invention, since the Koksbang patent does not expressly recite that the particle size range disclosed is a range of average particle sizes.

The Examiner argued that the phrase in the Koksbang patent "typically less than 10 microns" would be superfluous regardless of the meaning of "0.1 to 5 microns." With all due

Application No. 09/606,884

respect, Applicants maintain that the more consistent interpretation is that these are ranges within a single distribution and not a range of averages. If 0.1 to 5 microns relates to a distribution of particle sizes, there is some cut off in the distribution that is used to assign the end points presented. This can be picked, for example, at one standard deviation. Thus, there would be some particles with sizes larger than 5 microns and smaller than 0.1 microns. To then indicate that the particle sizes are typically less than 10 microns would imply that a more stringent criterion is being used to indicate "typically," for example 90 percent or 95 percent of the particles. This interpretation is perfectly consistent although not exactly explained in the Koksbang patent. So if the "0.1 to 5 microns" is a distribution, the expression "typically less than 10 microns" is not superfluous. However, if "0.1 to 5 microns" refers to average particle sizes, the expression "typically less than 10 microns" is superfluous or inconsistent.

The Examiner further asserts that "factors controlling particle size in precipitation reactions are well-known in the art, and thus would not be necessary to disclose." To be an enabling disclosure based on a range of averages, these factors would certainly need to be well known in the art. However, the Examiner has provided no evidence to support this assertion and thus must be based on personal knowledge of the Examiner. Applicants hereby request documentary support of this assertion or an Affidavit from the Examiner under 37 C.F.R. 1.104(d)(2), which must be provided under the rules.

Also, the Examiner has not address Applicants' comment regarding the language at column 5, lines 4-6 of the Koksbang patent relating to the Example. The Example presents only one set of process conditions for the production of a single product. See column 4, lines 17-67. As stated at column 5, lines 4-6, "The product was found to have a surprisingly small particle size on the order of 0.1 to 5 microns, and typically less than 10 microns." A single product (as described in Koksbang's example) has a single average particle size and not average particle sizes "on the order of 0.1 to 5 microns." It makes no sense to interpret this language in

RECEIVED  
14 2003  
PC 1700

Application No. 09/606,884

the Example as being a range of average particle sizes when it is referring to a single product. Yet this is virtually identical to language found at column 2, lines 59-61.

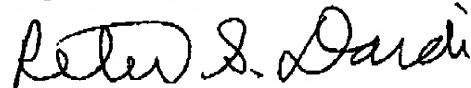
To obtain a consistent reading of the language when viewing the Koksbang patent as a whole, the only reasonable reading of the language in the Koksbang patent is that the particles have a range of particle sizes from 0.1 to 5 microns with an average size of roughly 2.5 microns. The Examiner has failed to establish prima facie anticipation of Applicants' claimed invention based on the Koksbang patent. Since the Koksbang patent does not prima facie anticipate Applicants' claimed invention, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. §102(a) and (e) of claims 47-52 as being anticipated by the Koksbang patent.

#### CONCLUSIONS

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,



Peter S. Dardi, Ph.D.  
Registration No. 39,650

Customer No. 24113  
Patterson, Thuente, Skaar & Christensen, P.A.  
4800 IDS Center  
80 South 8th Street  
Minneapolis, Minnesota 55402-2100  
Telephone: (612) 349-5746